

Chronic Disease Indicators: Indicator Definition



Medicare-eligible persons aged ≥ 65 years hospitalized for cerebrovascular accident or stroke

Category:	Cardiovascular Disease
Demographic Group:	Medicare-eligible resident persons aged ≥ 65 years.
Numerator:	Hospitalizations (unduplicated*) with principal diagnosis of International Classification of Diseases (ICD)-9-CM codes 430–434 and 436–438 of Medicare-eligible resident persons aged ≥ 65 years during a calendar year.
Denominator:	Residents aged ≥ 65 years who were eligible for Medicare Part A benefits on July 1 of the calendar year, excluding members of health maintenance organizations.
Measures of Frequency:	Annual number of persons hospitalized. Annual hospitalization rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, distribution 18†) — with 95% confidence interval.
Time Period of Case Definition:	Calendar year.
Background:	During 2001, stroke was the third leading cause of death in the United States, accounting for approximately 164,000 deaths.
Significance :	Modifiable risk factors for stroke include behaviors (e.g., tobacco use, physical inactivity, and improper nutrition) and health status (e.g., untreated hypertension, hyperlipidemia, overweight, or diabetes). Approximately 26% of stroke deaths in the United States are attributable to high blood pressure and 12% to smoking. Substantial differences in stroke death rates and preventive measures exist by race, age, sex, place of residence, and other demographic factors. Historically, the southeastern United States has had high stroke death rates.
Limitations of Indicator:	Although the two major types of stroke — hemorrhagic (approximately 10% of stroke) and ischemic (approximately 65% of stroke) — share certain risk factors, their treatment varies. Because cerebrovascular disease has a long latency period, years might pass before changes in behavior or clinical practice patterns affect cerebrovascular disease morbidity and mortality.
Data Resources:	Centers for Medicare and Medicaid Services (CMS) Part A claims data (numerator) and CMS estimates of the population of persons eligible for Medicare (denominator).
Limitations of Data Resources:	Diagnoses listed on hospital discharge data might be inaccurate. Practice patterns and payment mechanisms could affect decisions by health-care providers to hospitalize patients. Indicator is limited to Medicare-eligible population.
Healthy People 2010 Objectives:	No objective.

* The term unduplicated means that persons with multiple admissions during the calendar year should only be counted once. † See Klein RJ, Schoenborn CA. Age adjustment using the 2000 projected U.S. population. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics, 2001. Healthy people 2010 statistical notes, no. 20 <http://www.cdc.gov/nchs/data/statnt/statnt20.pdf>